SPEC SFS 1 Summary (Side 1 of 2) 097.LADDIS

Hewlett-Packard Company
HP Series 9000/V2250 Enterprise Server

Server Hardware

CPU, Memory, & Power

Model No.	V2250
CPU	240 MHz PA-Risc 8200
# of CPUs	16
Primary Cache	2MBI+2MBD off chip
Secondary Cache	None
Other Cache	None
Memory	8GB
UPS	None
Other hardware	ODS Optical Concentrators (6)

Server Software

OS Version	HP-UX 11.00 Extension Pack 9812 64-bit
Other software	None
File system	VXFS

Load Generators (LGs)

Number of Load Generators:	30
Processes Per Load Generator:	6
Biod_Max_Reads:	2
Biod_Max_Writes:	2

Disk Subsystem & Filesystems

(Full Configuration on Side 2)

Num Disk Controllers	6
Num Disks	187
Num File Systems	180

Network Subsystem

(Full Configuration On Side 2)

Num Net Controllers	10
Num Networks	10
Type Network	FDDI

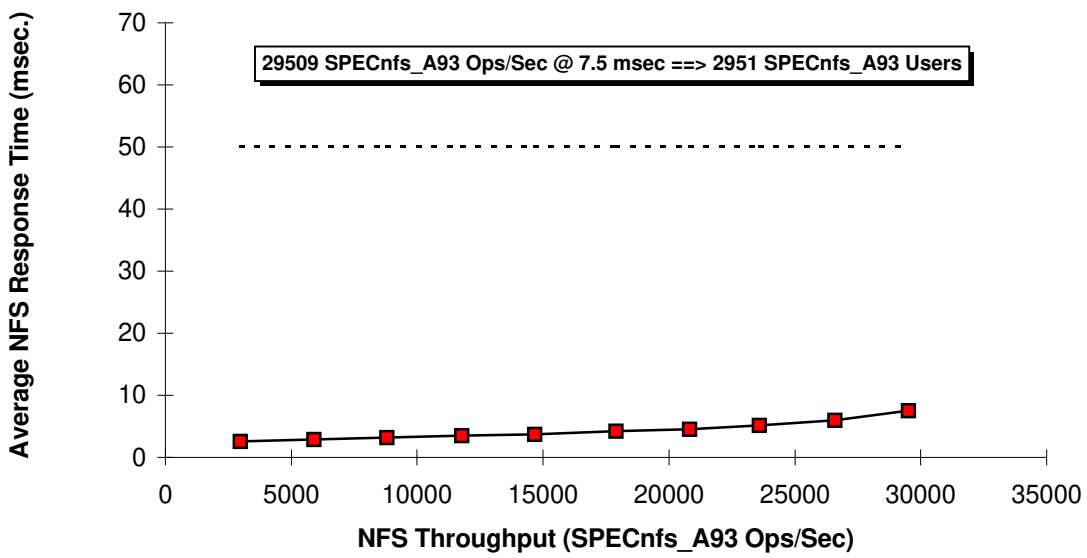
Server Tuning

(Also see Notes/Tuning below)

Buffer Cache Size	Dynamic
Num NFS Daemons	270
Fileset Size	168.2GB

NFS Throughput SPECnfs_A93 Ops/Sec	Avg. Response Time (NFS) Milliseconds
2971	2.6
5898	2.9
8785	3.2
11763	3.5
14654	3.7
17899	4.2
20811	4.5
23576	5.2
26584	6.0
29509	7.5

Hardware Availability:	Mar-98			**Software Availability:**	Dec-98		
License #:	3	**Tested:**	Jun-98	**By:**	HP	**Of:**	Cupertino, CA



Notes/Summary Of Tuning Parameters: (Continued on Side 2 of 2)

Server's HP-UX Kernel Parameters:

ninode 400000
nfile 3000
maxswapchunks 32768
dbc_max_pct 50
eqmemsize 100

The adb tool was used to turn off disk i/o statistics:

adb -w /stand/vmunix /dev/kmem km_disable/w 1

SPEC SFS 1 Summary (Side 2 of 2) 097.LADDIS

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Detailed Server Description

Network Subsystem

PCI FDDI Adapter A3739A (N1): 3 LGs ODS Concentrator
PCI FDDI Adapter A3739A (N2): 3 LGs ODS Concentrator
PCI FDDI Adapter A3739A (N3): 3 LGs ODS Concentrator
PCI FDDI Adapter A3739A (N4): 3 LGs ODS Concentrator
PCI FDDI Adapter A3739A (N5): 3 LGs ODS Concentrator
PCI FDDI Adapter A3739A (N6): 3 LGs ODS Concentrator
PCI FDDI Adapter A3739A (N7): 3 LGs Dual attach FDDI
PCI FDDI Adapter A3739A (N8): 3 LGs Dual attach FDDI
PCI FDDI Adapter A3739A (N9): 3 LGs Dual attach FDDI
PCI FDDI Adapter A3739A (N10):3 LGs Dual attach FDDI

Disk Subsystem & Filesystems

Controller 1: PCI Ultra Wide SCSI-2 A4800A
Disks: 7 SCSI C2490WD 2GB
Contents: OS, page space, dump

Controllers 2 - 6: PCI FiberChannel 1062 Mb/s Shortwave Adapter A3740A
30 HP Disk Array AutoRAID Model 12H (A3700A) with
FC Mux (A3308A) & 96MB
6 Logical Drives (LUNs) striped 2GB across 12 4GB 7200rpm drives/array
Contents 2: F1,F6,...,F176
Contents 3: F2,F7,...,F177
Contents 4: F3,F8,...,F178
Contents 5: F4,F9,...,F179
Contents 6: F5,F10,..,F180

Detailed Load Generator (LG) Description

Load Gen. Type	*Model*	*# of CPUs*	*RAM*	*OS*	*Compiler*
	HP 9000/735	1	96MB	HP-UX 10.20	HP 92453-01 A.10.32.00 HP C
	HP B160	1	128MB	HP-UX 10.20	HP 92453-01 A.10.32.03 HP C

Testbed Configuration

Load Gen. #	*Load Gen. Type*	*Network*	*Target File Systems*	*Notes*
##	LG1	N1	F1,...,F151/F2,...F152/F3,...F153	default
##	LG1	N2	F4,...,F154/F5,...F155/F6,...F156	default
##	LG1	N3	F7,...,F157/F8,...F158/F9,...F159	default
##	LG1	N4	F10,..,F160/F11,..F161/F12,..F162	default
13/14/15	LG1	N5	F13,..,F163/F14,..F164/F15,..F165	default
16/17/18	LG1	N6	F16,..,F166/F17,..F167/F18,..F168	default
19/20/21	LG2	N7	F19,..,F169/F20,..F170/F21,..F171	default
22/23/24	LG2	N8	F22,..,F172/F23,..F173/F24,..F174	default
25/26/27	LG2	N9	F25,..,F175/F26,..F176/F27,..F177	default
28/29/30	LG2	N10	F28,..,F178/F29,..F179/F30,..F180	default

Notes/Summary Of Tuning Parameters: (Continued from Side 1 of 2)

no